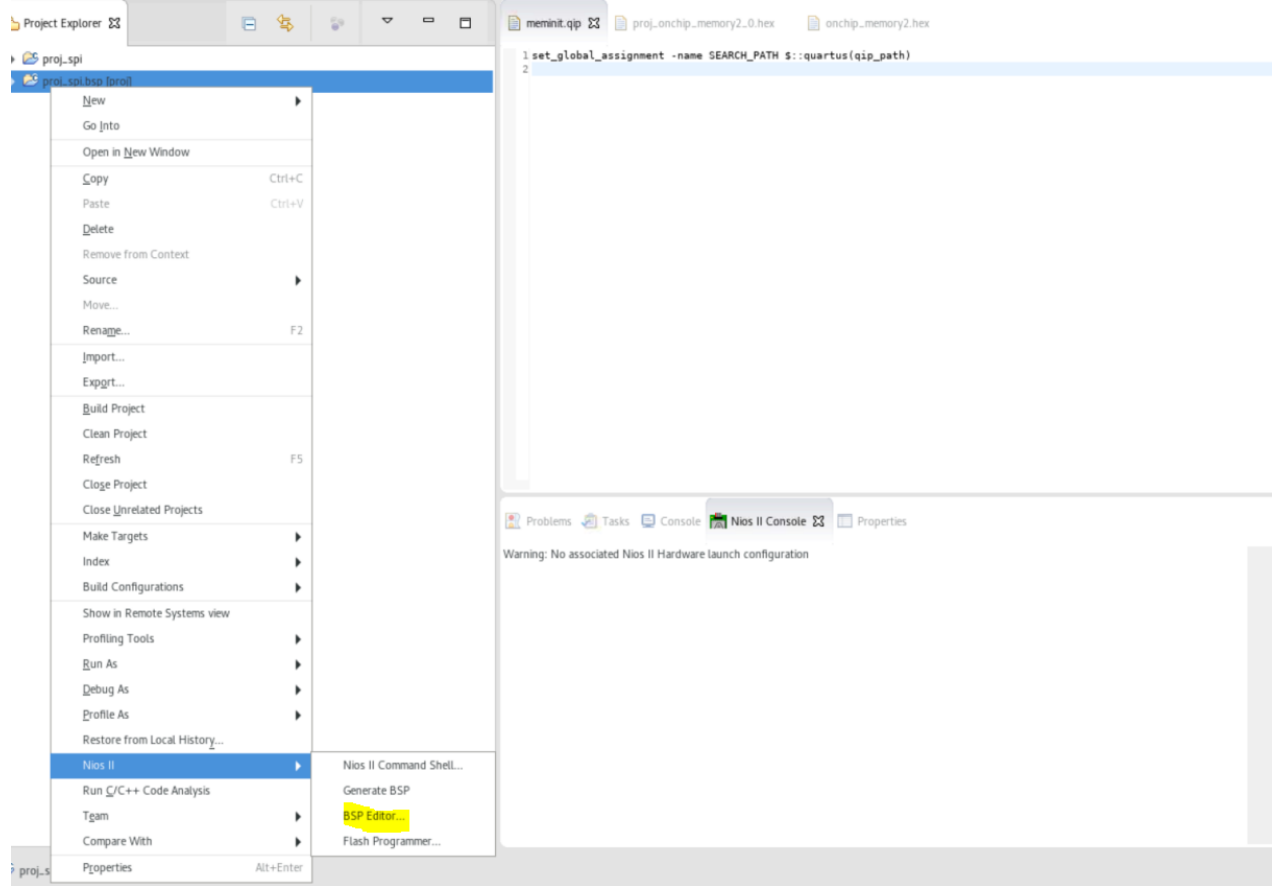


BSP Editor



BSP Editor – Main

The screenshot shows the main window of the BSP Editor. The title bar reads "BSP Editor - settings bsp (on ppgyli0113)". The menu bar includes "File", "Edit", "Tools", and "Help". Below the menu bar are several tabs: "Main", "Software Packages", "Drivers", "Linker Script", "Enable File Generation", and "Target BSP Directory".

The "Main" tab is active, displaying the following information:

- SOPC Information file: `../proj/sopcinfo`
- CPU name: `nios2_gen2_0`
- Operating system: Altera HAL
- Version: `default` (dropdown menu)
- BSP target directory: `/nfs/png/disks/ceg_user_wwanalim/20.1sp/proj-Spi3_181223/software_new/proj-spi.bsp`

The "Settings" section is expanded, showing a tree view of configuration options:

- Settings
 - Common
 - Advanced
 - hal
 - max_file_descriptors
 - enable_instruction_related_exceptions_api
 - log_port
 - enable_exit
 - enable_clean_exit
 - enable_runtime_stack_checking
 - enable_c_plus_plus
 - enable_lightweight_device_driver_api
 - enable_mul_div_emulation
 - enable_soc_sysid_check
 - custom_newlib_flags
 - log_flags
 - linker
 - make

The "hal.Linker" section is expanded, showing the following options:

- `allow_code_at_reset`
- `enable_ait_load`
- `enable_ait_load_copy_rodata`
- `enable_ait_load_copy_rwdata`
- `enable_ait_load_copy_exceptions`

The "Information" tab is active, displaying a list of messages:

- Found Flash Memory: `onchip_memory2_data` for CPU: `nios2_gen2_0`
- Loading drivers from ensemble report.
- Mapped module: `"nios2_gen2_0"` to use the default driver version.
- Mapped module: `"onchip_memory2"` to use the default driver version.
- Mapped module: `"spi_0"` to use the default driver version.
- Mapped module: `"tag_uart_0"` to use the default driver version.
- Finished loading drivers from ensemble report.
- Loading BSP settings from settings file.
- Finished loading SOPC Builder system info file `../proj/sopcinfo` [relative to settings file]

At the bottom right, there are "Generate" and "Exit" buttons. A status bar at the very bottom shows the message: `FINE: Mapped module: "itao_uart_0" to use the default driver version.`

BSP Editor – Linker Script. Generate and exit.

The screenshot shows the BSP Editor interface with the 'Linker Script' tab selected. The window title is 'BSP Editor - settings.bsp (on ppgyl0113)'. The menu bar includes 'File', 'Edit', 'Tools', and 'Help'. The main area is divided into two tables: 'Linker Section Mappings' and 'Linker Memory Regions'. Below these tables, there is a status bar with 'Generate' and 'Exit' buttons.

Linker Section Name	Linker Region Name	Memory Device Name	Add...
.bss	onchip_memory2_0	onchip_memory2_0	Remove...
.entry	reset	onchip_memory2_0	Restore Defaults...
.exceptions	onchip_memory2_0	onchip_memory2_0	
.heap	onchip_memory2_0	onchip_memory2_0	
.rodata	onchip_memory2_0	onchip_memory2_0	
.rwdata	onchip_memory2_0	onchip_memory2_0	
.stack	onchip_memory2_0	onchip_memory2_0	
.text	onchip_memory2_0	onchip_memory2_0	

Linker Region Name	Address Range	Memory Device Name	Size (bytes)	Offset (bytes)	Add...
onchip_memory2_0	0x00410020 - 0x0041F9FF	onchip_memory2_0	63968	32	Remove...
reset	0x00410000 - 0x0041001F	onchip_memory2_0	32	0	Restore Defaults...
onchip_memory2_data	0x00200000 - 0x0035FFFF	onchip_memory2_data	1441792	0	Add Memory Device... Remove Memory Device... Memory Usage... Memory Map...

Grayed out entries are automatically created at generate time. They are not editable or persisted in the BSP settings file.

Information Problems Processing

- Found Flash Memory: onchip_memory2_data for CPU: nios2_gen2_0
- Loading drivers from ensemble report.
- Mapped module: "nios2_gen2_0" to use the default driver version.
- Mapped module: "onchip_memory2" to use the default driver version.
- Mapped module: "spi_0" to use the default driver version.
- Mapped module: "jtag_uart_0" to use the default driver version.
- Finished loading drivers from ensemble report.
- Loading BSP settings from settings file.
- Finished loading SOPC Builder system info file ".../proj.sopcinfo [relative to settings file]"

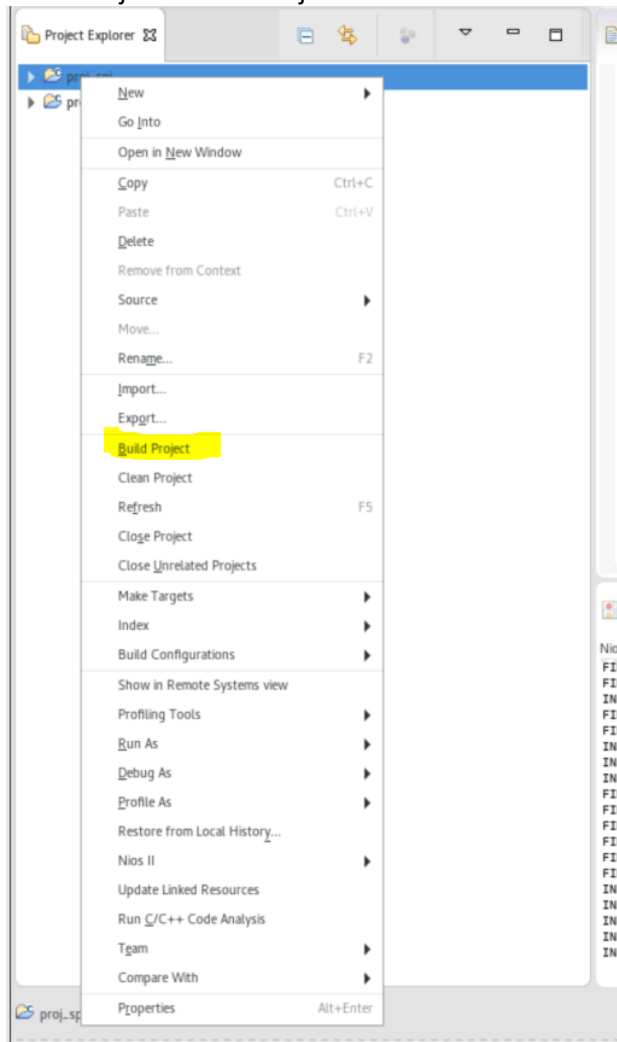
Generate Exit

Confirmation Finished BSP Generation

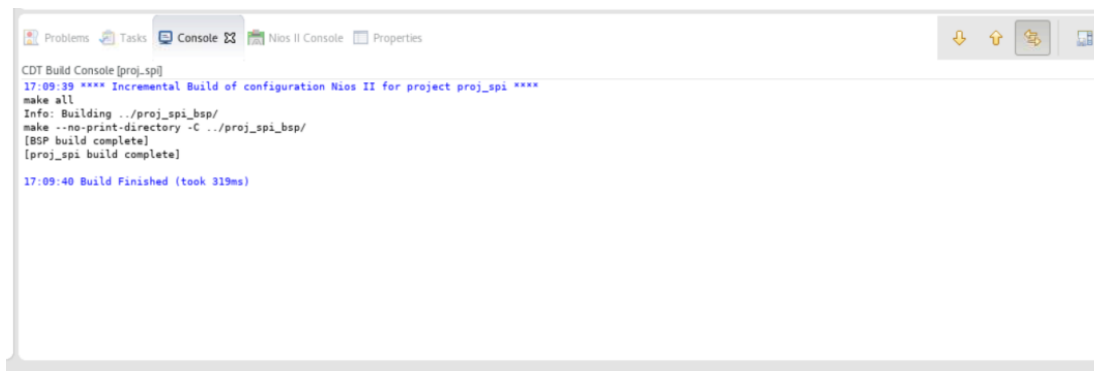
The screenshot shows the 'Nios II Software Build Tools' console output. The text is as follows:

```
FINE: Mapped module: "spi_0" to use the default driver version.
FINE: Mapped module: "jtag_uart_0" to use the default driver version.
INFO: Finished loading drivers from ensemble report.
FINE: Loading BSP settings from settings file.
FINE: Finished loading SOPC Builder system info file ".../proj.sopcinfo [relative to settings file]"
INFO: Generating BSP files in "/nfs/png/disks/ceg_user_wwanalim/20.lspi/proj_Spi3_181223/software_new/proj_spi_bsp"
INFO: Default memory regions will not be persisted in BSP Settings File.
INFO: Generated file "/nfs/png/disks/ceg_user_wwanalim/20.lspi/proj_Spi3_181223/software_new/proj_spi_bsp/settings.bsp"
FINE: Mapped section ".exceptions" to memory region "onchip_memory2_0".
FINE: Mapped section ".entry" to memory region "reset".
FINE: Added interrupt controller device driver for "nios2_gen2_0" to alt_irq_init() in alt_sys_init.c.
FINE: Added device driver for "onchip_memory2" to alt_sys_init() in alt_sys_init.c.
FINE: Added device driver for "spi_0" to alt_sys_init() in alt_sys_init.c.
FINE: Added device driver for "jtag_uart_0" to alt_sys_init() in alt_sys_init.c.
INFO: Generated file "/nfs/png/disks/ceg_user_wwanalim/20.lspi/proj_Spi3_181223/software_new/proj_spi_bsp/summary.html"
INFO: Generated file "/nfs/png/disks/ceg_user_wwanalim/20.lspi/proj_Spi3_181223/software_new/proj_spi_bsp/Makefile"
INFO: Generated file "/nfs/png/disks/ceg_user_wwanalim/20.lspi/proj_Spi3_181223/software_new/proj_spi_bsp/mem_init.mk"
INFO: Generated file "/nfs/png/disks/ceg_user_wwanalim/20.lspi/proj_Spi3_181223/software_new/proj_spi_bsp/public.mk"
INFO: Finished generating BSP files. Total time taken = 2 seconds
```

Go to Project – Build Project



Build Project Confirmation Finished



Run Configuration – Project

Name: proj_spi Nios II Hardware configuration

Project | Target Connection | Debugger | Common | Source

Project name:
proj_spi Search...

Project ELF file name:
/nfs/png/disks/ceg_user_wwanalim/20.1spi/proj_Spi3_181223/software/proj_spi/proj_spi.elf Search...

Enable browse for file system ELF file

File system ELF file name:
Browse... Advanced...

Revert Apply

Close Run

Run Configuration – Target Connection (Refresh and choose the Deca Connection)

Name: proj_spi Nios II Hardware configuration

Project | Target Connection | Debugger | Common | Source

Connections

Processors:

Cable	Device	Dev	Inst	Name	Architecture
AGI FPGA Development Kit on 10.107.209.3 [3-1.4]	VTAP10@2	2	C	nios2_C	Nios2:3
Arrow MAX 10 DECA on 10.107.209.3 [3-3]	10M50DA.(JES) 10M50DC@1	1	C	nios2_C	Nios2:3

Byte Stream Devices:

Cable	Device	Dev	Inst	Name	Version
AGI FPGA Development Kit on 10.107.209.3 [3-1.4]	VTAP10@2	2	C	jtaguart_C	1
Arrow MAX 10 DECA on 10.107.209.3 [3-3]	10M50DA.(JES) 10M50DC@1	1	C	jtaguart_C	1

Disable 'Nios II Console' view

System ID Properties Resolve Names Refresh Connections

Quartus Project File name:

System ID Checks

Revert Apply

